Claims:

5

1. The method of creating and using a stable plasma inside a solid, comprising:

providing a solid with a lattice of such nature that it will allow the creation of stable plasma inside,

causing particles to enter the lattice and become a stable plasma inside, and using the plasma.

2. Apparatus for creating and using a stable plasma 10 inside a solid, including:

providing a solid material with a lattice of such nature that it will allow the creation of stable plasma inside,

means for moving particles into said lattice and causing said particles to become a stable plasma inside, and

means to use the plasma.

3. The method of creating and using a stable plasma inside a solid, comprising:

providing a solid with a lattice containing cavities of such size that they will allow the formation and retention of stable plasma inside,

causing the solid material to vibrate at one of its resonant frequencies,

causing particles to enter the lattice and become a stable plasma inside as a result of the vibrations and the size of the cavities, and using the plasma.

4. Apparatus for creating and using a stable plasma inside a solid, including:

a solid with a lattice containing cavities of such size that they will allow the formation and retention of stable plasma inside,

means for causing the solid material to vibrate at one of its resonant frequencies,

means to move particles into said lattice and become a stable plasma inside as a result of the vibrations and the size of the cavities, and

10

15

25

35

means for using the plasma.

5. The method of creating and releasing a stable plasma from at least two distinct media, including:

providing at least two media with particles,

providing a solid material with a lattice containing cavities of such size that they will allow the formation and retention of plasma inside.

placing said solid material between said at least two media,

of the two said distinct media and become a stable plasma inside, and removing the stable plasma from the solid material through at least one face of the solid material.

6. Apparatus for creating and releasing a stable plasma from at least two distinct media, including:

at least two media with particles,

a solid material with a lattice containing cavities of such size that they will allow the formation and retention of plasma inside,

said solid material between two of said two media,

means for causing particles to enter the lattice from at least one of the two said distinct media and become a stable plasma inside, and means for removing the stable plasma from the solid material through at least one face of the solid material.

7. The method of creating and using a stable plasma 30 inside a solid, comprising:

providing a solid with a lattice containing cavities of such size that they will allow the formation and retention of stable plasma inside,

causing the solid material to vibrate at one of its resonant frequencies,

causing particles to enter the lattice and become a stable plasma inside as a result of the vibrations and the

15

20

size of the cavities, and using the plasma.

8. Apparatus for creating and using a stable plasma inside a solid, comprising:

44

a solid with a lattice containing cavities of such size that they will allow the formation and retention of stable plasma inside,

means to cause the solid material to vibrate at one of its resonant frequencies,

means to move particles into the lattice and become a stable plasma inside as a result of the vibrations and the size of the cavities, and means to use the plasma.

9. The method of storling energy in the form of stable plasma, comprising:

providing a solid material with a lattice of such nature that it will allow the creation of stable plasma inside,

causing particles to enter said lattice and becoming a stable plasma,

storing said particles as stable plasma inside said lattice, and producing energy from the stored plasma.

10. Apparatus for storing energy in the form of stable plasma, comprising:

providing a solid material with a lattice of such nature that it will allow the creation of stable plasma inside,

means to move particles into said lattice and become a stable plasma,

means to store said particles as stable plasma, and means to produce energy from the stored plasma.

11. The method of storing and using particles under the form of stable plasma, comprising:

providing a solid material with a lattice of such nature that it will allow the creation of stable plasma inside,

causing particles to enter said lattice and become a stable plasma,

storing said particles as stable plasma, and using said

30

10

15

45 1

particles.

12. Apparatus for storing and using particles under the form of stable plasma, comprising:

providing a solid material with a lattice of such nature that it will allow the creation of stable plasma inside,

means for moving said particles into said lattice and causing them to become stable plasma,

means to store said particles as stable plasma, and means to use said particles.

13. The method of producing fusion using a stable plasma inside a solid, comprising:

providing a solid material with a lattice containing cavities of such size that they will allow the formation and retention of stable plasma inside,

causing the solid material to vibrate at one of its resonant frequencies so that the cavities of the lattice are also vibrating,

causing particles to enter the lattice, and become a stable plasma inside,

using the vibrations and the size of the cavities to cause at least some of these particles to fuse and produce energy.

25

30

35

14. Apparatus for producing fusion using a stable plasma inside a solid, comprising:

providing a solid material with a lattice containing cavities of such size that they will allow the formation and retention of stable plasma inside,

causing the solid material to vibrate at one of its resonant frequencies so that the cavities of the lattice are also vibrating,

moving particles into the lattice so that they become a stable plasma inside,

the vibrations and the size of the cavities causing at least some of the se particles to fuse and produce energy.

10

20

35

15. The method of creating particles from a stable plasma inside a solid, comprising:

providing a solid material with a lattice containing cavities of such size that they will allow the formation and retention of stable plasma inside,

causing the solid material to vibrate at one of its resonant frequencies so that the cavities of the lattice are also vibrating,

causing particles to enter the lattice, and become a stable plasma inside,

using the vibrations and the size of the cavities to cause at least some of these particles to fuse and produce particles other than those which entered the lattice.

16. Apparatus for providing particles using a stable plasma inside a solid, compr/ising:

providing a solid material) with a lattice containing cavities of such size that they will allow the formation and retention of stable plasma inside,

means for causing the solid material to vibrate at one of its resonant frequencies so that the cavities of the lattice are also vibrating,

means to move particles into the lattice, and become a stable plasma inside,

- 25 means to use the vibrations and the size of the cavities to cause at least some of the particles to fuse and produce particles other than those which entered the lattice.
- 17. The method of providing atomic particles using a stable plasma inside a solid, comprising:

providing a solid material with a lattice containing cavities of such size that they will allow the formation and retention of stable plasma inside,

causing the solid material to vibrate at one of its resonant frequencies,

causing particles to enter the lattice, and become a stable plasma inside,

10

15

20

25

30

47

using the vibrations and the size of the cavities to cause at least some of these particles to fuse and produce atomic particles.

18. Apparatus for creating atomic particles using a stable plasma inside a solid, comprising:

a solid material with a lattice containing cavities of such size that they will allow the formation and retention of stable plasma inside,

means to cause the solid material to vibrate at one of its resonant frequencies.

means to move particles into the lattice, and become a stable plasma inside,

means to use the vibrations and the size of the cavities to cause at least some of the particles to fuse and produce atomic particles.

19. The method of creating beta and gamma particles, and neutrons using a stable plasma inside a solid, comprising:

providing a solid material with a lattice containing cavities of such size that they will allow the formation and retention of stable plasma inside,

causing the solid material to vibrate at one of its resonant frequencies so that the cavities of the lattice are also vibrating.

causing particles to enter the lattice, and become a stable plasma inside,

using the vibrations and the size of the cavities to cause at least some of these particles to fuse and produce at least some of the following: beta particles, gamma particles and neutrons.

20. Apparatus for creating beta and gamma particles, and neutrons using a stable plasma inside a solid, comprising:

providing a solid material with a lattice containing cavities of such size that they will allow the formation and retention of stable plasma inside,

means for vibrating the solid material at one of its resonant frequencies.

means to move particles into the lattice, and become a stable plasma inside,

- means to use the vibrations and the size of the cavities 5 to cause at least some of the particles to fuse and produce at least some of the following: beta particles, gamma particles, and neutrons.
- 21. The method of creating new elements using a stable 10 plasma inside a solid, comprising:

providing a solid material with a lattice containing cavities of such size that they will allow the formation and retention of stable plasma inside,

causing the solid material to vibrate at one of its resonant frequencies so that the cavities of the lattice are also vibrating,

causing particles to enter the lattice, and become a stable plasma inside,

using the vibrations and the size of the cavities to cause at least some of these particles to fuse with the nuclei of the atoms of the latt/ice and produce new elements.

Apparatus for creating new elements using a stable plasma inside a solid, comprising: 25

providing a solid material with a lattice containing cavities of such size that they will allow the formation and retention of stable plasma inside,

means to cause the solid material to vibrate at one of its resonant frequencies so that the cavities of the lattice also vibrating,

means to move particles into the lattice, and become a stable plasma inside!

means to use the vibrations and the size of the cavities 35 to cause at least some of the particles to fuse with the nuclei of the atoms of the lattice and produce new elements.

15

20

20

35

49

23. The method of producing isotopes of the atoms of a lattice using a stable plasma inside a solid, comprising:

providing a solid material with a lattice containing cavities of such size that they will allow the formation and retention of stable plasma inside,

causing the solid material to vibrate at one of its resonant frequencies,

causing particles to enter the lattice, and become a stable plasma inside,

using the vibrations and the size of the cavities to cause at least some of these particles to fuse with the nuclei of the atoms of the lattice and produce isotopes of the atoms of the lattice.

24. Apparatus for producing isotopes of the atoms of a lattice using a stable plasma inside a solid, comprising:

a solid material with a lattice containing cavities of such size that they will allow the formation and retention of stable plasma inside,

means to cause the solid material to vibrate at one of its resonant frequencies so that the cavities of the lattice are also vibrating,

means to move particles into the lattice, and become a stable plasma inside,

means to use the vibrations and the size of the cavities to cause at least some of the particles to fuse with the nuclei of the atoms of the lattice and produce isotopes of the atoms of the lattice.

25. The method of creating atoms of a different class than those of a lattice using a stable plasma inside a solid, comprising:

providing a solid material with a lattice containing cavities of such size that they will allow the formation and retention of stable plasma inside,

causing the solid material to vibrate at one of its resonant frequencies so that the cavities of the lattice are

20

30

50

also vibrating,

causing particles to enter the lattice, and become a stable plasma inside,

using the vibrations and the size of the cavities to cause at least some of these particles to fuse with the nuclei of some of the atoms of the lattice and transform said atoms into different atoms.

26. Apparatus for transforming atoms that are in a lattice using a stable plasma inside a solid, comprising:

a solid material with a lattice containing cavities of such size that they will allow the formation and retention of stable plasma inside,

means to cause the sollid material to vibrate at one of its resonant frequencies so that the cavities of the lattice are also vibrating.

means to move particles into the lattice, and become a stable plasma inside,

means to use the vibrations and the size of the cavities to cause at least some of the particles to fuse with the nuclei of some of the atoms of the lattice and transform said atoms into different atoms.

27. The method of transferring a stable plasma between two solid materials, comprising:

providing first and second pieces of solid material, each having one face contiguous with a face of the other.

forming stable plasma inside one of the pieces,

allowing at least some of that stable plasma to move from one piece to the other,

removing the new piece with transferred stable plasma inside and using said transferred plasma.

28. Apparatus for transferring a stable plasma between two solid materials, comprising:

first and second pieces of solid material, each having one face contiguous with one of the face of the other,

د

20

25

30

means to form stable plasma inside one of the pieces, means to move at least some of that stable plasma from one piece to the other,

removing the new piece with transferred stable plasma inside and using transferred plasma.

29. The method of melting the surface layer of a solid material, comprising:

providing a solid material with a lattice of such nature that it will allow the creation of stable plasma inside,

causing particles to enter said lattice with such energy . that they will melt the surface layer of the solid material.

30. Apparatus for melting the surface layer of a solid material, comprising:

providing a solid material with a lattice of such nature that it will allow the creation of stable plasma inside,

providing the means to move particles into said lattice with such energy that they will melt the surface layer of the solid material.

31. The method of creating and using a highly concentrated burst of particles, comprising:

providing a solid material with a lattice of such nature that it will allow the creation of stable plasma inside,

causing a first group of particles to enter the lattice and become a stable plasma inside,

causing a second group of particles to enter said lattice with a high energy, fuse with at least some of the particles of the first group and produce a third, highly concentrated, group of particles other than those which entered the lattice, and

using said third, highly concentrated, group of particles.

32. Apparatus for creating and using a highly concentrated burst of particles, comprising:

15

providing a solid material with a lattice of such nature that it will allow the creation of stable plasma inside,

means to move a first group of particles into the lattice and become a stable plasma inside,

means to move a second group particles into said lattice with a high energy, fuse with at least some of the particles of the first group and produce a third, highly concentrated, group of particles other than those which entered the lattice, and

means for using said third, highly concentrated, group of particles.

33. The method of producing energy and hydrogen molecules using an electrochemical mechanism inside a solid. including:

providing a solid material with a lattice containing cavities of such size that they will allow the creation of energy and hydrogen molecules inside thereof,

causing protons to enter said lattice and react with 20 electrons therein to produce and energy and hydrogen molecules.

34. Apparatus for producing energy and hydrogen molecules using an electrochemical mechanism inside a solid, including:

a solid material with a lattice containing cavities of such size that they will allow the creation of energy and hydrogen molecules inside thereof,

means for causing protons to enter said lattice and react with electrons therein to produce and energy and hydrogen molecules.

35. The method of creating and using a stable plasma inside a solid, including:

providing a solid material with first and second lattices, the first containing cavities of such size that they allow the formation and retention of plasma inside, the second

25

containing cavities of such size they allow the production of energy and hydrogen molecules inside, and cavities of such size that they allow the formation and retention of plasma inside,

causing protons to enter the second lattice to react with electrons therein to produce energy and hydrogen molecules inside,

causing particles to enter the first and second lattices and become a stable plasma inside, and

10 using said plasma.

36. Apparatus for creating and using a stable plasma inside a solid, including:

a solid material with first and second lattices, the first containing cavities of such size that they allow the formation and retention of plasma inside, the second containing cavities of such size they allow the production of energy and hydrogen molecules inside, and cavities of such size that they allow the formation and retention of plasma inside,

means for moving protons into the second lattice to react with electrons therein to produce energy and hydrogen molecules inside.

means for moving particles into the first and second lattices and become a stable plasma inside, and means for using said plasma.

37. The method of creating and using a stable plasma inside a solid, including:

providing a solid material with a lattice containing first and second cavities, the first cavities being of such size that they will allow the formation and retention of stable plasma inside, the second cavities being of such size that they will allow the production of energy and hydrogen molecules inside,

causing particles to enter said lattice to produce energy, hydrogen molecules and stable plasma,

pulsing the entry of said particles to cause the solid material to vibrate at one of its resonant frequencies, and using the stable plasma.

38. Apparatus for creating and using a stable plasma inside a solid, including:

a solid material with a lattice containing first and second cavities, the first cavities being of such size that they will allow the formation and retention of stable plasma inside, the second cavities being of such size that they will allow the production of energy and hydrogen molecules inside,

means for causing particles to enter said lattice and produce energy, hydrogen molecules and stable plasma,

means for pulsing the entry of said particles and cause the solid material to vibrate at one of its resonant frequencies, and means for using the stable plasma.

20

1.5

5

10

25